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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,415	05/09/2001	Shunpei Yamazaki	12732-036001/US4906	1902
26171	7590	09/07/2005	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			KOVALICK, VINCENT E	
			ART UNIT	PAPER NUMBER
			2677	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,415

Applicant(s)

YAMAZAKI ET AL.

Examiner

Vincent E. Kovalick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-38, 40 and 41 is/are allowed.
- 6) ☒ Claim(s) 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/9/01, 1/23/04. *

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to Applicant's Amendment dated May 16, 2005 in response to USPTO Office Action dated January 14, 2005.

The amendments to claims 17, 18, 26, 36, 39 and 40 have been noted and entered in the record.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harkin (USP 6,327,376) taken with Soini et al (USP 6,445,932) in view of Umeya (USP 6,028,581).

Relative to claim 39, Harkin **teaches** an electronic apparatus comprising a fingerprint sensing device (col. 2, lines 39-67; col. 3, lines 1-67; col. 4, lines 10-67 and col. 5, lines 1-30); Harkin further **teaches** a mobile information communication device (col. 10, lines 1-28 and Figs. 7-8); and a liquid crystal display (LCD) device (item 70 in Figs. 7-8) provided in said mobile information communication device; said liquid crystal.

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Harkin **does not specifically teach** said liquid crystal display including a pixel portion having a plurality of pixels, each of said pixels comprising: a pixel thin film transistor having a source region, a drain region and a gate electrode; a source signal line connected to the source region; a liquid crystal element and a storage capacitor connected to the drain region; a gate signal line connected to the gate electrode; and a capacitance line connected to the storage capacitors, said pixel portion as described being well known in the makeup of liquid crystal display devices.

Because said structure is in common practice and well known in the art, it would have been obvious to a person of ordinary skill in the art at the time of the invention that said pixel panel as described hereinabove would have been included in the LCD as taught by Harkin.

Harkin **does not teach** a flash memory, wherein said LCD comprises photo diodes provided for respective pixels, and wherein individual information associated with physical characteristics of a user is stored in said flash memory.

Harkin teaches an electronic apparatus comprising a LCD and a fingerprint sensing device.

Soini et al. **teaches** a multi-service mobile station (col. 2, lines 32-67 and col. 3, lines 1-45);

Soini et al. further **teaches** a flash memory wherein individual information of a user is stored in said flash memory (col. 6, lines 65-67 and col. 7, lines 1-8); it being understood that the 'user information' could include, among many things, the physical characteristics associated with the user.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Harkin the feature as taught by Soini et al. in order to provide a nonvolatile storage means for storing data secured from being accidentally purged.

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Harkin taken with Soini et al. **does not teach** said LCD comprising photo diodes provided for respective pixels.

Harkin taken with Soini et al. teaches a liquid crystal device provided in a mobile information communication device wherein the said LCD comprises photo diodes provided for respective pixels.

Umeya **teaches** an apparatus for a Liquid Crystal Display having an input function (col. 2, lines 55-67 and col. 3, lines 1-10); Umeya further **teaches** said LCD comprising photo diodes provided for respective pixels col. 2, lines 55-67).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Harkin taken with Soini et al. the feature as taught by Umeya in order to provide a solid state image display device that lends itself to application in miniature hand-held electronic devices.

Allowable Subject Matter

4. Claims 1-38 and 40-41 allowed.

5. The following is an examiner's statement of reasons for allowance:

Relative to claims 1, 3, 21, 23 and 40, the major difference between the teachings of the prior art of record (Harkin, USP 6,327,376; Soini, USP 6,445,932 and Umeya, USP 6,028,581) and that of the instant invention is that said prior art of record **does not teach** a built in image sensor, or an image sensor constructed of photo diodes comprising a first thin film transistor having a first source region, a first drain region and a first gate electrode; a sensor gate signal line connected to the first gate electrode; a sensor output wiring connected to one of the first source and drain regions; a second thin film transistor having a second source region, a second drain region and a

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second gate electrode; a reset gate signal line connected to the second gate electrode; and a sensor power source line connected to the second drain region; a storage device; a module for judging whether the user can be identified or not by comparing individual information read by said image sensor with individual information stored in said storage device and a module for transmitting a result of the authentication via the Internet; or a means for collating individual information read by said image sensor with user's individual information stored in a flash memory.

Regarding claims 26 and 36, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a user identity authentication method using a mobile information communication device provided with a liquid crystal display device having first and second front lights and comprising a built-in image sensor, said method comprising: a step of reading individual information of a use with said image sensor when the first front light is lit up; a step of displaying an image when the second front light is lit up; and a step of authenticating a user's identity based on said individual information or a step of transmitting said individual information via the Internet; wherein the first and second front lights are not lit up simultaneously.

Response to Applicant's Remarks

6. Applicant's arguments filed May 16, 2005 have been fully considered but they are not persuasive.

Applicant's amendment to claim 39 teaches the individual information of a user being stored in a flash memory, said information being "associated with physical characteristics" of a user.

The prior art reference Soini et al. (USP 6,445,932) teaches the "user information" being stores in a flash memory. It would have been obvious to a person of ordinary skill in the art at the time of the invention that the users physical characteristics could be part of the user information stored in the flash memory as taught by Soini et al.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	6,456,279	Kubo et al.
U. S. Patent No.	6,476,374	Kozlowski et al.
U. S. Patent No.	6,070,796	Sibu

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

To Respond

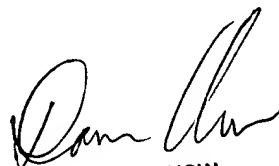
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 571-272-6779. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 572-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vincent E. Kovalick
August 22, 2005



DENNIS-DOON CHOW
PRIMARY EXAMINER